

# Imperial Oil Limited Annual Report 1977

AR37





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## COVER

*Driller Pete Goodhelpsen, of Edmonton, was part of the crew drilling the Isserk E-27 well from an artificial island in the Beaufort Sea.*

## RIGHT

*Imperial well at West Pembina, where the industry made significant oil discoveries during 1977.*





# Highlights

## Financial

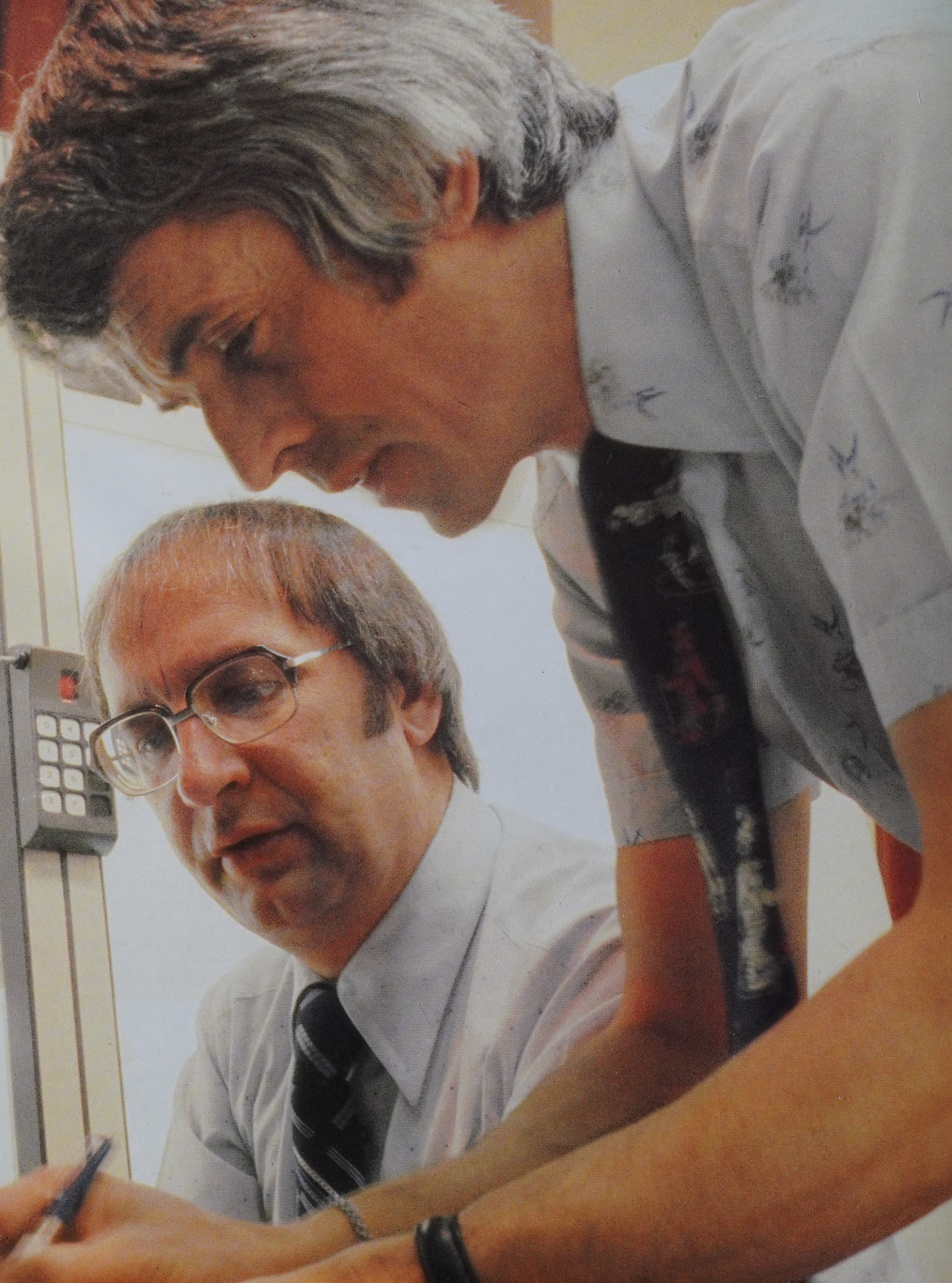
	1977	1976
Earnings	289	264 <i>millions of dollars</i>
Dividends	116	106
Revenues	5,041	4,367
Capital and exploration expenditures	412	393
Taxes charged against income	625	535
Total taxes generated	1,008	948
Crown royalties	355	291
Earnings per share	2.22	2.03 <i>dollars</i>
Dividends per share	.888	.816
Earnings as a percentage of: average shareholders' equity	15.9	16.0 <i>percentages</i>
average capital employed	11.4	11.4

## Operating

	1977	1976
Sales of petroleum products	433	441 <i>thousands of barrels per day</i>
Crude oil processed for Imperial	422	423
Production of crude oil and natural-gas liquids: gross	230	236
net	148	154
Sales of natural gas	363	378 <i>millions of cubic feet per day</i>
Sales of chemicals and building materials	5,252	4,697 <i>metric tons per day</i>
Gross proved reserves: crude oil and natural-gas liquids*	1,038	1,101 <i>millions of barrels</i>
Western Canada natural gas	2,200	2,366 <i>billions of cubic feet</i>
Mackenzie Delta estimated reserves of natural gas	3,400	3,400 <i>billions of cubic feet</i>

\*Does not include Mackenzie Delta discoveries of crude oil or Syncrude, Cold Lake, and other heavy oils.







# Imperial Oil Limited Annual Report 1977

## Directors

J. A. Armstrong<sup>2,3</sup>  
R. A. Bray  
P. Des Marais II<sup>1,2\*,3</sup>  
J. W. Flanagan  
J. H. Hamlin  
A. R. Haynes  
M. Kovitz<sup>1,2,3\*</sup>  
J. G. Livingstone<sup>1</sup>  
D. D. Loughheed  
W. A. Macdonald<sup>1\*,2,3</sup>  
W. J. Young<sup>1</sup>

## Officers

*President and Chief  
Executive Officer  
and Chairman  
of the Board*  
J. A. Armstrong  
*Executive  
Vice-President*  
J. G. Livingstone  
*Senior  
Vice-Presidents*  
R. A. Bray  
J. W. Flanagan  
J. H. Hamlin  
A. R. Haynes  
D. D. Loughheed  
W. J. Young

*Vice-Presidents*  
G. L. Haight  
A. M. Lott  
D. H. MacAllan  
G. R. McLellan  
A. G. Moreton  
G. A. Rogers  
V. Sirois  
P. Stauf  
T. H. Thomson  
*General Secretary*  
D. H. MacAllan  
*Comptroller*  
G. R. McLellan, FCA  
*Treasurer*  
A. M. Lott  
*General Counsel*  
G. A. Rogers

D. K. McIvor resigned as a director and executive vice-president July 31, 1977

1 Member, audit committee

2 Member, board compensation committee

3 Member, contributions committee

\* Committee chairman

*John A. Armstrong*

*President and Chief Executive Officer  
Imperial Oil Limited Toronto, Canada*

## Quarterly Earnings, Stock Prices, and Trading

The stock of Imperial Oil Limited is listed on the Montreal, Toronto, and Vancouver stock exchanges and traded on the American Stock Exchange. The earnings per share are shown for each quarter of 1977 and 1976. The high and low Toronto prices and the number of shares traded on all exchanges are also shown for Class A shares.

	1977				1976			
	Earnings	Prices		Shares	Earnings	Prices		Shares
Quarter		High	Low	traded		High	Low	traded
	(dollars per share)			(thousands)		(dollars per share)		(thousands)
First	.57	23¾	20⅝	2,268	.57	25	22¼	4,206
Second	.49	23⅛	19½	1,846	.47	26	22½	3,110
Third	.54	23⅝	19¼	3,006	.44	24⅛	20⅝	2,629
Fourth	.62	21¾	18⅛	2,393	.55	22½	18½	2,648
YEAR	2.22	23¾	18⅛	9,513	2.03	26	18½	12,593

*John Jendruszka (left) and  
Doug Hall use a computer  
to develop a flow chart  
in Calgary.*







# Message from the President

*Canada has the  
resources to meet  
national energy goals*

*A fluid coker under  
construction at Syncrude.  
Coking starts the process of  
bitumen upgrading.*

The past year was one of intense activity for the Canadian petroleum industry. This activity is welcome at such a critical time in our energy history, but we should not allow ourselves to be lulled into believing that our energy problems are well on the way to being solved. They're not.

The federal government's national energy strategy calls for reducing net imports of crude oil to no more than one-third of this country's total oil consumption or 800,000 barrels per day, whichever is less, by 1985; coupled with expected demand, this will require the production of a million barrels per day of new domestic supplies by 1990, according to the federal government. The attainment of this ambitious goal will demand the aggressive development of Canada's reserves of conventional, synthetic, and heavy oil. It will depend not only on the efforts of the industry itself but, to a considerable degree, on appropriate federal and provincial government policies. Ultimately, it will depend on the commitment of all Canadians.

There is no doubt that we possess in this country sufficient undeveloped natural resources to provide energy for many decades to come — although it will be more expensive.

We are also fortunate in having the necessary technology to develop these natural resources. In fact, Canada is second to none in oil and gas technology and has pioneered many new techniques, a good example being the methods developed by Imperial for extracting bitumen from the deposits at Cold Lake, Alta.

As the construction of the Syncrude oil-sands plant demonstrates, Canada also possesses the management skills necessary to plan and execute energy projects of the size and complexity that will be required.

But there is one other critical requirement for domestic energy development. We need a political and economic climate that will facilitate the accumulation of the vast amounts of capital for such development.

To produce enough domestic energy to meet our national goals will result in a quantum leap in the industry's financial needs. Total capital requirements for all types of energy projects in this country between now and 1990 including electricity, will be in the region of \$180 billion, expressed in 1978 dollars. For crude oil and natural gas, including transportation sys-

tems, the cost could be \$70 to \$80 billion; under the right conditions, Imperial's investment could approximate 10 percent of this.

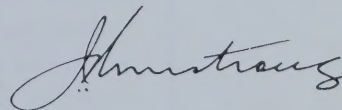
Where is the petroleum industry to find this capital? It certainly cannot all be generated internally, at least under present revenue-sharing arrangements. Much of it will have to come from outside sources in the form of loans or equity capital. But financial experts have pointed out that, because of the high-risk nature of petroleum development, major industry projects will require a larger-than-normal proportion of the funding to be generated internally before outside capital can be attracted.

Government policies have a direct effect on the industry's ability to generate internal funds and they also exercise a strong influence on the degree of confidence that outside investors have in the industry as an investment. And government policies are grounds for concern in some areas.

Both the industry and potential investors become apprehensive when governments, largely on grounds of political expediency, take actions that have a direct effect on the industry's ability to generate cash. This effect constitutes a severe disincentive to new investment.

Both the industry and would-be investors also need assurance that government policies will be stable. The incentives to develop and invest in the next generation of energy projects must reflect the costs and risks involved and must offer the opportunity for a good return on capital invested. The industry's outstanding reinvestment record in Canada clearly demonstrates its willingness to use profits in this way.

Canada's petroleum industry can find and develop new sources of supply, but supportive government policies are necessary. In such a climate, the national goal of energy self-reliance can be attained, jobs can be created, and a major contribution made to the country's economic health.

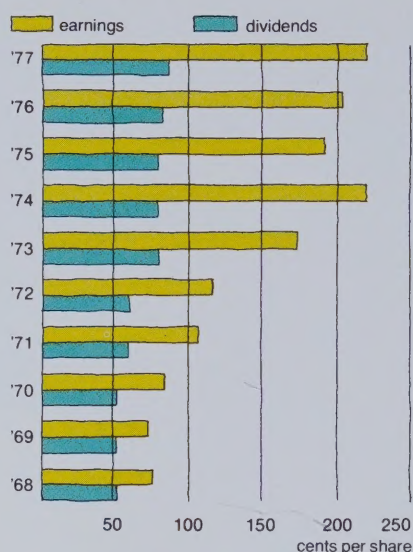


J. A. Armstrong  
President and Chief Executive Officer and  
Chairman of the Board

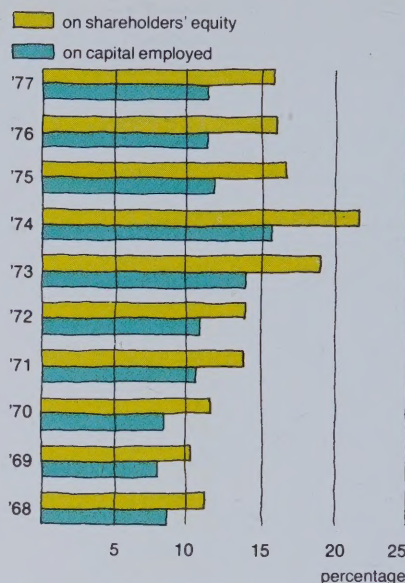


# Financial Results

Earnings and Dividends Per Share



Rates of Return



## CONSOLIDATED FINANCIAL RESULTS

The earnings of Imperial Oil Limited in 1977 were \$289 million, up \$25 million or nine percent over 1976. Earnings per share were \$2.22, compared with \$2.03 for 1976. The increase came primarily from the petroleum-products segment.

Total revenues rose by \$674 million to reach \$5,041 million. The change in revenues was due primarily to higher prices of crude oil, natural gas, and petroleum products. Higher revenues from sales of chemicals and building materials reflect an increase of 12 percent over the tonnage of these materials sold in 1976.

Expenses in 1977 were up by \$649 million, due mainly to the higher costs of purchases of crude oil and products, and higher operating and exploration costs, royalties, and income and other taxes.

The cash required for capital expenditures, dividend payments, and reduction in long-term debt in 1977 amounted to \$431 million. The amount spent on the development of new petroleum resources was \$324 million. Requirements for working capital rose by \$32 million due primarily to increases in accounts receivable and inventories. These needs were met with cash from current operations and from sales of surplus property, plant, and equipment.

## FINANCIAL RESULTS BY SEGMENTS

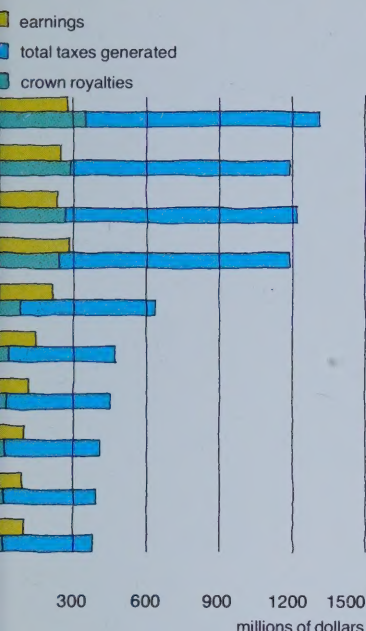
The earnings and capital employed by the major operating segments of Imperial are reported in the table below. The segments are presented as if they were separate entities and the results include the financial effect of transactions between them. The effects of these transactions have been eliminated in the Consolidated Financial Statements and the ten-year summary on pages 31 to 39.

The financial and operating results of each segment are reported in greater detail in the review of operations beginning on page 11.

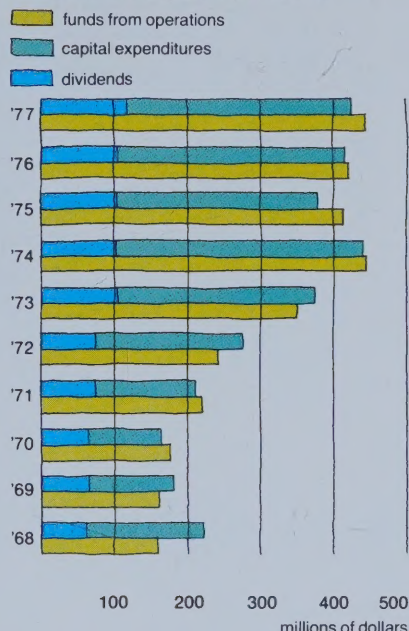
	Earnings after taxes		Capital employed at Dec. 31	
	1977	1976	1977	1976
millions of dollars				
Natural Resources	183	185	1,093	841
Petroleum Products	76	48	1,349	1,355
Esso Chemical Canada	16	19	172	178
Interest on Long-Term Debt	(16)	(16)	—	—
Other Operations	30	28	173	189
	<u>289</u>	<u>264</u>	<u>2,787</u>	<u>2,563</u>



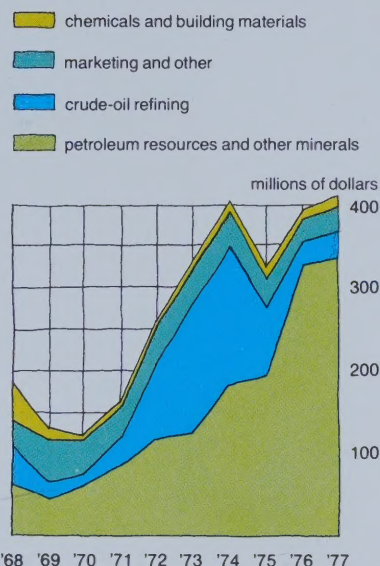
## Earnings, Taxes, and Royalties



## Funds from Operations Compared with Dividends and Capital Expenditures



## Capital and Exploration Expenditures



## INFLATION'S EFFECTS ON FINANCIAL RESULTS

A recent study of inflation accounting by the Ontario government confirmed that part of the profits reported by conventional accounting practices during periods of inflation is illusory. This illusion has two main effects. The Ontario study identifies one of them as public pressure on government to control business profit that appears to be excessive. The other effect is that the bulk of the profit, although some of it is illusory, is taxed as if all of it were real, resulting in an erosion of capital by taxation. Studies by professional accounting organizations are in progress to find a method of calculating earnings that permits the effects of inflation to be reported to shareholders and included in determining taxable income.

The table shows how the inflation adjustment suggested by the Ontario committee would reduce Imperial's 1977 earnings. In the opinion of Imperial as well as the committee, this adjustment cannot be used by itself to determine the effects of inflation on Imperial's earnings. A number of other factors must be considered, including potential efficiencies arising from the assumed replacement of existing facilities with new ones, replacement of assets with those of a different type, and income-tax policy. Nevertheless, the adjustment does provide some measure of the size of the inflationary effect.

	millions of dollars
Inventories sold during 1977:	
Excess of the cost when sold over original cost	68
Plant and equipment:	
Depreciation based on replacement cost less depreciation based on original cost	138
Financing adjustment:	
Deduct the portion of the above adjustments that is deemed to be borne by creditors	(15)
Income taxes:	
Taxes related to accelerated depreciation, allocated to future years	(59)
Net reduction in earnings:	132

*a measure of inflation's effect on results*







# Review of Operations

## Natural Resources

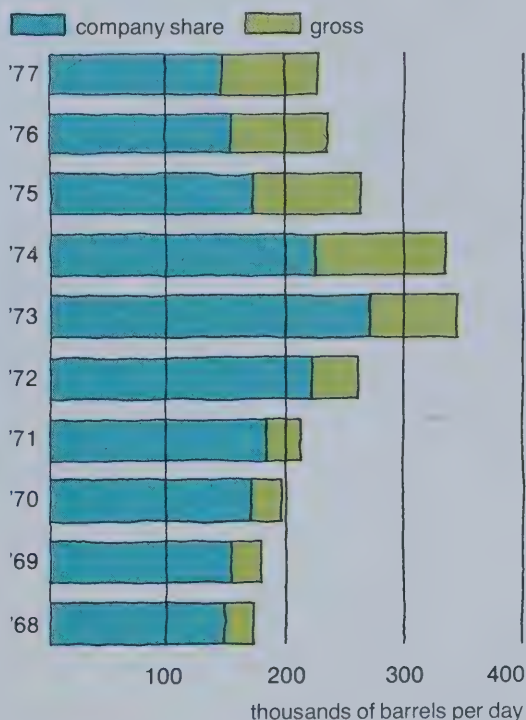
### Summary

The operations of Imperial Oil in the development of natural resources include exploring for and producing crude oil and natural gas, developing synthetic crude oil, and exploring for and developing coal, uranium, and base metals.

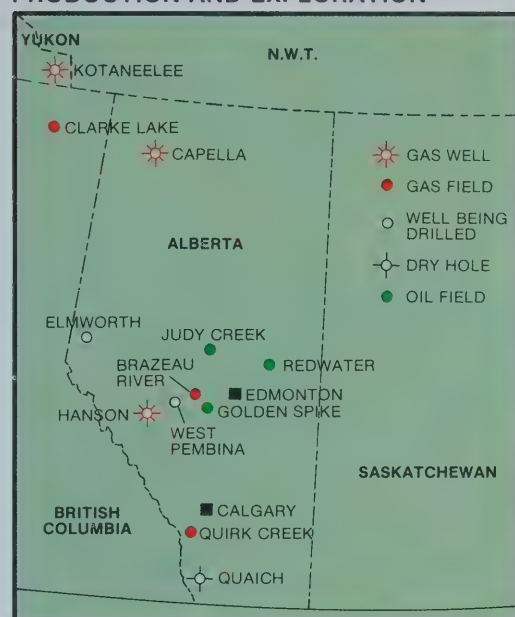
Earnings from these operations in 1977 were \$183 million, a decrease of \$2 million from the 1976 results. Higher prices for crude oil and natural gas were offset by lower production volumes, increased royalties and income taxes, and greater costs of exploration. Capital and exploration expenditures in 1977 were \$335 million, an increase of \$6 million over 1976. These expenditures were made mainly to increase Canada's energy supply, the principal project being Syncrude Canada Ltd., where Imperial's share of the 1977 cost was \$182 million.

The amount of capital employed in the natural-resources segment reached \$1.1 billion in 1977. This is an increase of \$252 million over the 1976 figure, and a three-fold increase since 1972.

Production of Crude Oil and Natural-Gas Liquids



## PRODUCTION AND EXPLORATION



### Highlights

#### OIL AND GAS PRODUCTION

Domestic demand for light-gravity crude increased in 1977 but the increase did not compensate fully for the decrease in production resulting from the federal government's program of phasing out exports. Imperial's gross production of crude oil and natural-gas liquids averaged 230,000 barrels per day in 1977, a decrease of 6,000 barrels per day from 1976.

Imperial's major oil fields – Judy Creek, Redwater, and Golden Spike – accounted for 60 percent of the company's production of crude oil. Imperial has about 30 percent of the industry's spare productive capacity of 400,000 barrels per day and this allowed the company to gain a large share of the increased production of crude oil that occurred in months of high demand, some 6,000 barrels per day higher than average daily production would have been otherwise.

Demand for crude oil will decline further in 1978 as the phase-out of exports of

*Drilling crew work on a well at Quirk Creek to maintain productivity of the gas field.*

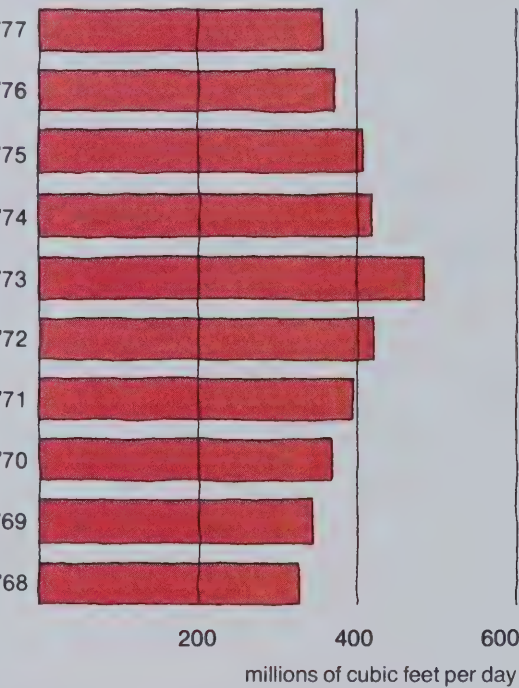


light crude continues, although this will be offset partially by increased Canadian demand. The effect on Imperial of the overall reduction in demand will be tempered by production from the Syncrude project.

The company's sales of natural gas averaged 363 million cubic feet per day, down four percent from 1976 levels, mainly as a result of declining productivity of a few older gas fields. During the year, projects were undertaken to maintain productivity or reduce its decline in the Brazeau, Quirk Creek and Clarke Lake gas fields. Approval was obtained for a gas-recycling project at the Golden Spike oil field to recover additional ethane, propane, and butane and to make some natural gas available for sale beginning in 1978. These and other projects will maintain gas production near the current level in 1978.

During the year, the company participated in the drilling of 68 development

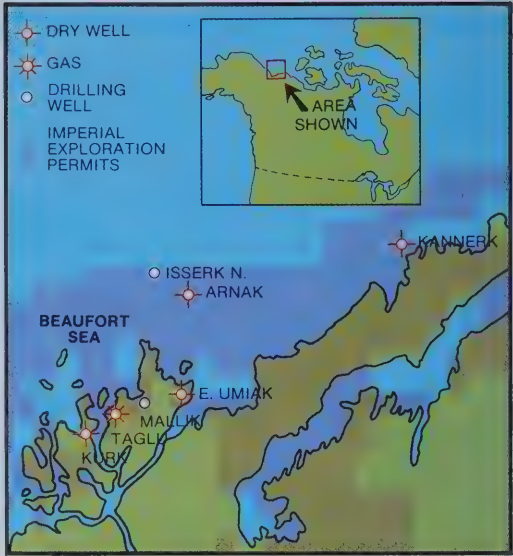
Natural-Gas Sales



rights acquired at  
Elmworth and West  
Pembina, in Alberta

wells and invested \$31 million to develop oil and gas reserves and maintain productivity. At the end of the year, Imperial had interests in 8,081 oil and gas wells capable of production – the equivalent of 2,919 wholly owned wells.

BEAUFORT BASIN



EXPLORATION

*Western Provinces and Southern Yukon*

In 1977, Imperial spent \$13 million on exploration in the western provinces. The company participated in a number of gas discoveries in the Yukon and northern Alberta. In December, the company began drilling in the Elmworth area of north-western Alberta and northern British Columbia where significant gas discoveries have been made by the industry.

During the year, \$20 million was spent to acquire interests in exploration rights to 170,000 acres in western Canada. These and other purchases made early in 1978 give Imperial a significant position in the Elmworth gas area as well as West Pembina, a highly prospective area for oil.

*Beaufort Basin*

Imperial has been exploring in the Mackenzie Delta and Beaufort Sea since 1964. During that time, the company spent approximately \$376 million, drilled 70 wells, and discovered an estimated 3.4 trillion cubic feet of gas. During 1977, the company drilled four exploration wells, which were dry. The Taglu H-54 well further delineated



the extent of the Taglu gas field. Late in December, the company began drilling two more wells - Mallik, 15 kilometres north-east of Taglu, and Isserk E-27, an artificial island constructed in water 42 feet deep. Isserk is the 14th island built by Imperial since 1973 and the water is the deepest in which a drilling island has yet been constructed in the Beaufort Sea.

In 1977, the National Energy Board recommended approval of a pipeline to carry natural gas from Alaska. A lateral to this pipeline along the Dempster Highway can provide an economic means to move to market the gas reserves already discovered by Imperial in the Mackenzie Delta. Detailed engineering work on a gas plant proposed for this area has been deferred to be consistent with the timing of the pipeline connection.

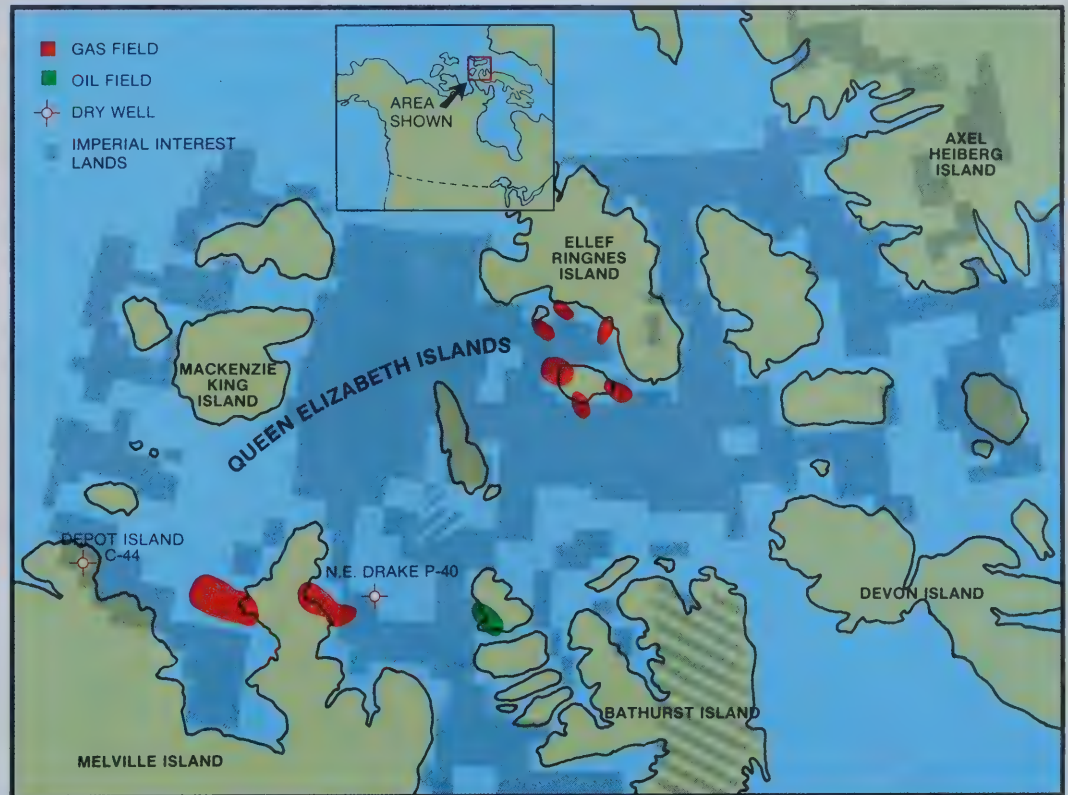
### Arctic Islands

Substantial reserves of gas as well as minor amounts of oil have been discovered in the western Sverdrup Basin among the Queen Elizabeth Islands. Imperial is a member of Arctic Islands Exploration Group, which is committed to spend \$80 million on an exploration program in this area. The program began in 1976 and the first two wells - Depot Island C-44 and N.E. Drake P-40 - were drilled in 1977 and were dry.

The Arctic Islands Exploration Group obtained 4,300 kilometres of seismic surveys in 1977 to assist in locating drilling sites throughout the acreage. These surveys indicate a number of prospective structures and the group plans to drill two of them in 1978.

*participation in \$80-million program in Arctic islands*

### ARCTIC ISLANDS





## ATLANTIC EXPLORATION

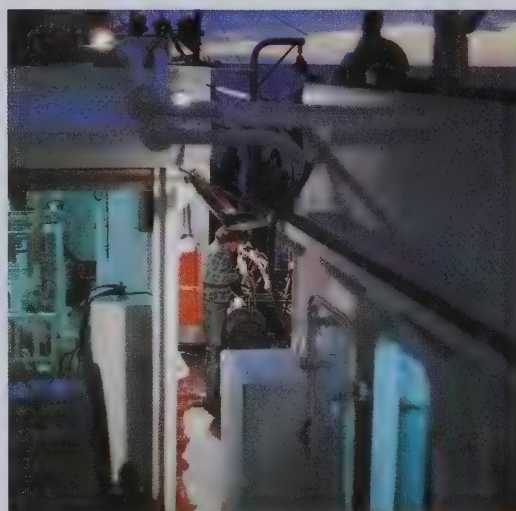


*seismic surveys of  
Atlantic holdings*

### *Atlantic Offshore*

The company holds exploration permits on nine million acres in the Orphan-Flemish Pass area and five million acres in the area of Cumberland Sound. During the summer of 1977, it completed 5,400 kilometres of seismic surveys on these holdings. The company also holds options to earn exploration rights to an additional total of 4½ million acres in those areas. The evaluation of drilling vessels available for use in the 4,000-foot water depths on its holdings is continuing and Imperial is supporting research for the development of subsea production systems.

The dispute between the federal government and the government of Newfoundland



*As day ends, David Butcher prepares seismic devices for exploration in the Atlantic.*

and Labrador over the ownership of offshore mineral rights in the waters off Newfoundland and Labrador has brought exploratory drilling there to a halt. The evaluation by drilling of Imperial's holdings in the Orphan-Flemish Pass area awaits settlement of this dispute.

### SYNTHETIC CRUDE OIL

The oil sands of the Athabasca, Cold Lake, Peace River, and Wabasca areas, all in Alberta, contain some of the world's largest deposits of hydrocarbons. These deposits are in the form of bitumen or oil so viscous it will not flow under natural conditions. Once produced, the material must be upgraded into a synthetic crude oil before it can be refined into petroleum products.

### *Syncrude Canada Ltd.*

Imperial owns 31.25 percent of Syncrude Canada Ltd., the company that is developing deposits of bitumen in the Athabasca oil sands. Since late 1973, Syncrude has been building a plant 40 kilometres from Fort McMurray to mine the shallow deposits, extract the bitumen, and upgrade it into synthetic crude oil. During its life, this project will add the equivalent of about a billion barrels to Canada's supply of crude oil. At the end of 1977, plant construction was 95 percent complete and costs were close to the estimates made in



*Umiak, on the shore of the Beaufort Sea, is one of five wells drilled by Imperial in this area in 1977.*





*Gas plant at Quirk Creek, Alta., where productivity projects were under way in 1977.*

1974. Imperial's share of the capital expenditures to the end of 1977 was \$533 million.

Preliminary mining operations started during 1977 and, by year end, oil sands containing the equivalent of about four million barrels of oil had been stockpiled for upgrading to begin in 1978. It is expected that the first production of synthetic crude oil will be pumped into a new pipeline by mid 1978 for delivery to Edmonton. A production rate of about 100,000 barrels

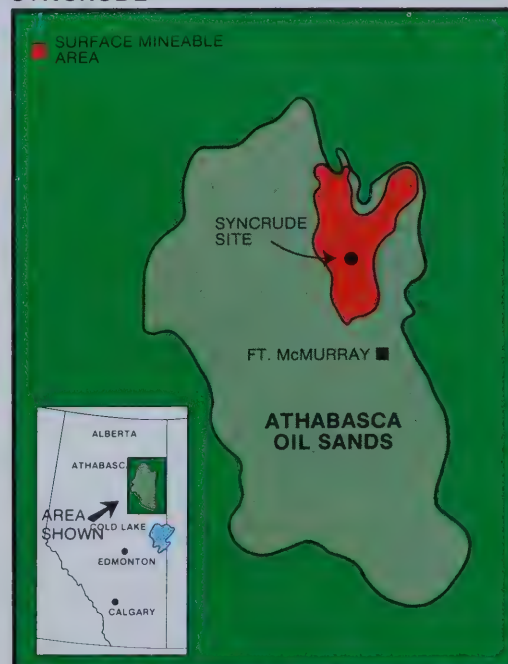
per day is expected to be reached by the end of the year or early in 1979. Production at the permit capacity of 125,000 barrels per day is expected to be achieved by the early 1980s. The Syncrude project will employ directly more than 3,000 persons when it is in full operation.

#### *Cold Lake*

In November, 1977, Imperial applied to the Energy Resources Conservation Board

*Syncrude 95-percent complete at year-end*

#### SYNCRUDE



*A truck loaded with bitumen for Edmonton passes one of the well sites at Cold Lake.*



*\$4-billion project proposed for Cold Lake, Alta.*

of Alberta for approval of a project to provide up to 145,000 barrels of synthetic oil per day from deposits of bitumen at Cold Lake.

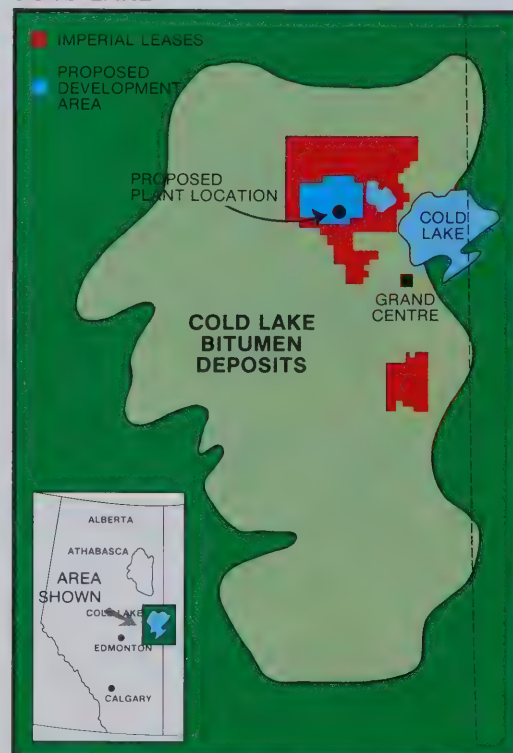
The project will be located 300 kilometres northeast of Edmonton, where the company has about 200,000 acres of leases with bitumen at depths around 1,500 feet. As part of the project, the company has applied to build an upgrading facility that will convert the bitumen into a light, conventional crude oil. During the project's life, it is expected to provide more than one billion barrels of synthetic crude.

Design development is proceeding and the estimated capital cost of the commercial project will be at least \$4 billion, including allowances for future inflation. The use of coal is being studied as a supplementary fuel for the project and this would reduce the amount of bitumen consumed. Imperial has reserves of coal in Alberta that could be developed to provide this supplementary fuel.

An average of 3,000 persons will be employed to build the project, with a peak construction force of about 7,000, most of whom would be located at the site. Operation of the facility will employ directly more than 1,500 persons.

Imperial has had experimental pilot plants operating at Cold Lake since 1964.

### COLD LAKE



*In Calgary, technologist Reuben Heater prepares a sample from a well at Cold Lake for analysis.*

In the Imperial process, high-pressure steam is injected into the reservoir to reduce the viscosity and allow the bitumen to flow to the wells and be pumped to the surface. Since 1975, when a new, large-scale pilot plant was placed in operation, production has averaged about 5,000 barrels per day.

It is expected that the application for the project will be examined by the Energy Resources Conservation Board in the summer of 1978. If all necessary approvals and satisfactory agreements with the federal and Alberta governments on taxes, royalties, and other matters are obtained by 1979, construction could start in 1981 and be completed by late 1985.

### Other Heavy-Oil Activities

In addition to the properties associated with Syncrude and Cold Lake, Imperial has varying interests in about 1½ million acres of leases in the Athabasca oil sands and in the Peace River area of Alberta.

Most of the oil in place in these areas is situated at depths that will require the application of new technology before it can be recovered. Imperial's laboratories at Calgary and Sarnia are researching ways to improve the technology for recovering and for upgrading the bitumen.

### RENEWABLE ENERGY SOURCES

As a result of recent studies of renewable energy sources, Imperial is initiating research on the use of solar energy with the emphasis on space and water heating. Studies will continue to keep abreast of other developments in the use of renewable energy.



## MINERALS



## MINERALS

The minerals aspect of the company's business is growing in importance and a new division – Esso Minerals Canada – was established on Jan. 1, 1978, to manage Imperial's operations in coal, base metals, and uranium.

### Coal

During 1977, Imperial increased its coal holdings to 670,000 acres, all in Alberta, and applications have been made to acquire other leases.

At year end, the company's proven reserves of sub-bituminous coal amounted to 535 million tons, the energy equivalent of about a billion barrels of oil. This coal is suitable for use in the generation of electricity or directly as fuel in some industrial applications.

Imperial has an option to earn an interest of 16.75 percent in Quintette Coal Limited, a company with reserves of metallurgical coal in northeastern British Columbia. Evaluation of these reserves continued during 1977; their production will depend on the world demand for steel.

*proven reserves of coal stand at 535 million tons*



*Geophysicist Ory Gorgichuk (left) and Regis Kenny sample drill cuttings at coal exploration site.*





*Using a compass and aerial photographs, geologist Bonnie Lowe (right) and technician Sharon Scott survey an Imperial property in Nova Scotia.*

## Base Metals and Uranium

At Gays River, N.S., the company discovered a deposit of lead and zinc in 1973. Since that time, tests of the size and grade of the deposit have been made and, in 1977, Imperial purchased all outstanding interests in it. A decision was made early in 1978 to go ahead with construction of surface facilities and development of an underground mine at a cost of \$27 million.

Near Kutcho Creek in northern British Columbia, further diamond drilling in the vicinity of a copper-zinc find made in 1974 located two other copper-zinc deposits. Jointly with another company, Imperial has been exploring and testing the grade and extent of a molybdenum deposit near Revelstoke, B.C., where deep diamond drilling in 1977 indicated that the deposit is more extensive than originally considered. Further evaluation of all these prospects will continue in 1978.

Expenditures on uranium exploration have increased each year and now account for nearly half the exploration budget of Esso Minerals Canada. The main emphasis of the uranium program is basic field reconnaissance work, which has identified a number of prospects that could contain economic ore deposits.

*lead and zinc mine under development in Nova Scotia*

## Petroleum Products

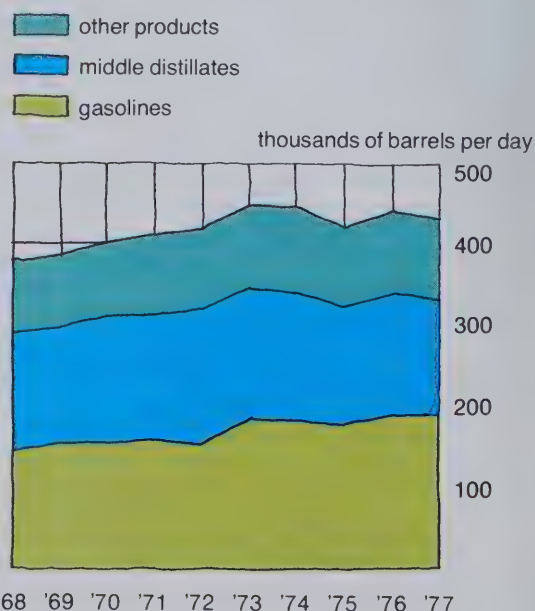
### Summary

The petroleum-products segment of Imperial's business includes the manufacture, distribution, and marketing of refined petroleum products and related products and services. Earnings from this segment increased to \$76 million in 1977 compared to \$48 million in 1976. The increase is due to improved efficiencies in marketing and refining operations and to increases in sales of products that yielded higher profits. Total product sales in 1977 were 485,000 barrels per day, about the same as in 1976.

Total capital employed amounted to \$1,349 million in 1977, about the same as 1976 despite greater costs of inventory of about \$60 million resulting from increases in the price of crude oil. Capital expenditures were \$62 million in 1977, compared with \$49 million in 1976. These expenditures were made on facilities to improve service to customers, to achieve greater efficiency in refining and marketing operations, and to meet environmental requirements. Although the results for 1977 are a significant improvement over 1976, earnings and return on capital remain at unsatisfactory levels.

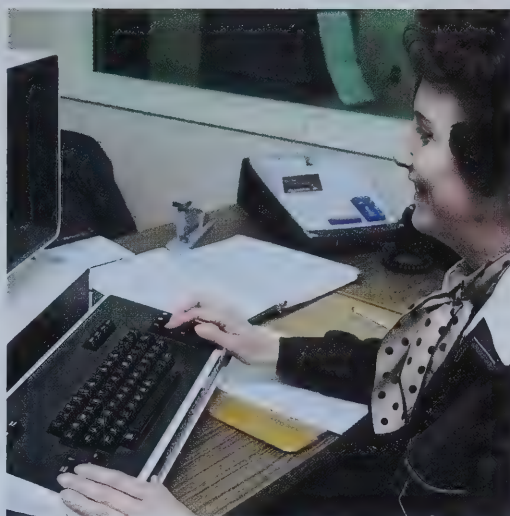
Intense price competition reduced margins in 1977. This competition is a direct

### Consolidated Petroleum Product Sales





*efficiencies in marketing  
and refining increase  
earnings*



*Credit supervisor Lorraine Doward uses a desk computer terminal to check Halifax customer records.*

result of the industry's overcapacity in refining, particularly in eastern Canada. In this region, additional refining capacity has been installed by industry for a domestic market that was originally forecast to grow at a faster rate, and for export sales, which did not materialize. In addition to this competition, government-imposed delays on increases in the prices of refined products resulting from higher costs for crude reduced earnings and cash flow by \$28 million.

### **Highlights**

#### **REFINERY OPERATIONS**

The company's refineries processed 422,000 barrels of crude oil per day in 1977, virtually the same as in 1976. In refining operations, costs were cut significantly through operating procedures and investments; together they have reduced energy consumption, increased the yield of refined products per barrel of crude, allowed the use of less expensive crude oil, and reduced maintenance costs.

#### **MARKETING OPERATIONS**

Imperial dealers operate in an intensely competitive market where a high level of efficiency is necessary for success. The company is helping its dealers to meet these challenges through merchandising and

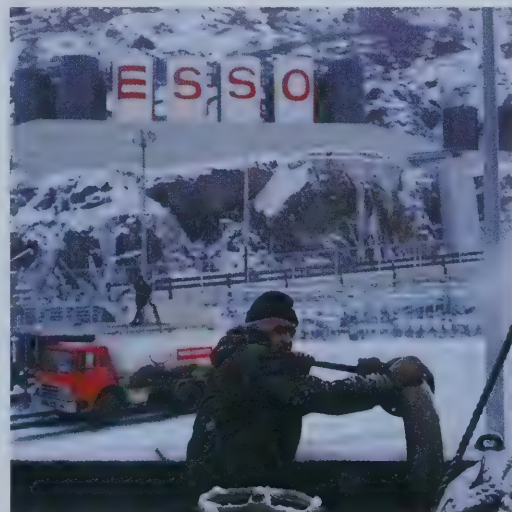
training programs. During the year, 750 retailers participated in the Checkpoint Service Retail Program and 1,700 service-station technicians completed specific training programs.

In addition, the company is continuing its policy of consolidating retail outlets into larger and more efficient facilities to meet changing customer preferences. Also, the availability of Esso 2000 unleaded motor gasoline was increased. By the end of 1977, it was available at about 70 percent of the 4,500 Esso retail outlets across Canada.

Imperial has a continuing research program to ensure that the company's products meet the changing needs of customers and the specifications of new equipment. One outcome of this program in 1977 was the development of a new crankcase oil for passenger cars that increases gasoline mileage and extends the oil-change interval. The oil went on sale under the name *new formula Uniflo* early in 1978.

Imperial began to deliver packaged products from Montreal to Newfoundland by container ship in 1977, and to deliver bulk lubricants by ship in the Atlantic provinces. These and other innovations were made to increase the efficiency and reliability of the company's system of supplying products to customers.

The company supplies products and services to major Canadian resource-development projects. It is a major supplier of fuels for the James Bay hydroelectric project and, during 1977, delivered 160,000 barrels of products by air from Schefferville to one of the project sites.



*Senior warehouseman Bill Wilson helps refuel a Danish ship during a stopover at St. John's, Nfld.*

*procedures and investments cut refining costs*







# Esso Chemical Canada

## Summary

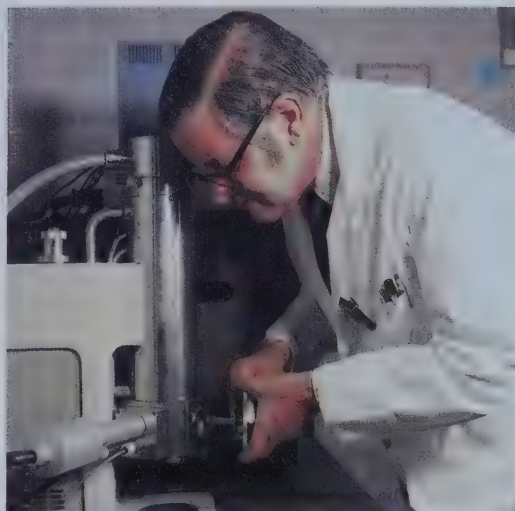
Esso Chemical Canada is a division of Imperial Oil that manufactures and sells products to the chemical, plastics-processing, construction, and agricultural markets. Earnings in 1977 were \$16 million, down \$3 million from 1976. Surplus capacity in virtually all segments of the chemical industry restricted Esso Chemical's ability to recover increases in the costs of raw materials, energy, and manufacturing. Revenue in 1977 from sales and from transfers between Esso Chemical and other Imperial segments and subsidiaries of petrochemicals, fabricated products, and agricultural chemicals was \$425 million, an increase of \$65 million over 1976. The increase is due in part to export sales of agricultural chemicals, fabricated products, chemical intermediates, and aromatics.

Capital employed at Dec. 31, 1977, was \$172 million, about the same as for 1976. During the year, \$7 million was spent to increase the effectiveness of the division's manufacturing facilities. An additional \$3 million was spent to meet more stringent environmental standards and to make plant facilities safer.

## Highlights

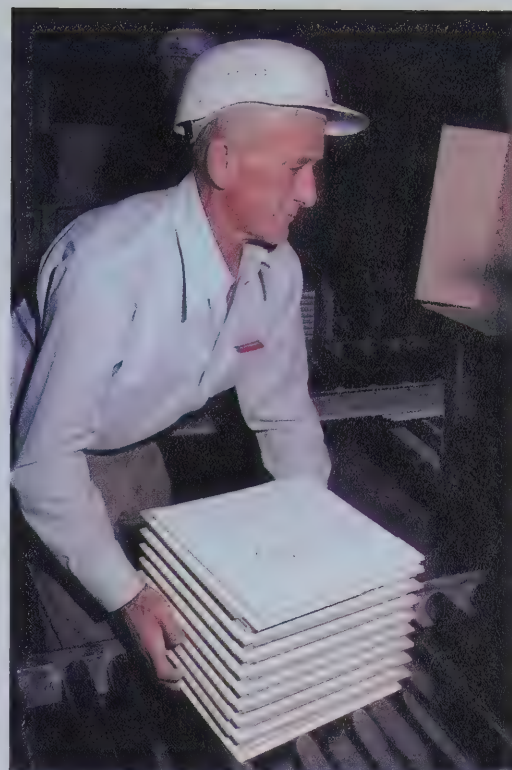
### PETROCHEMICALS

Market demand for petrochemicals increased in 1977 and revenues were up by about 20 percent over 1976. Revenues reached \$223



Keith Kauk (foreground) and Rick Lund wind paper felt for shingles at the Winnipeg plant.

Norm Lay uses an electron scanning microscope to examine a sample of polyvinyl-chloride resin.



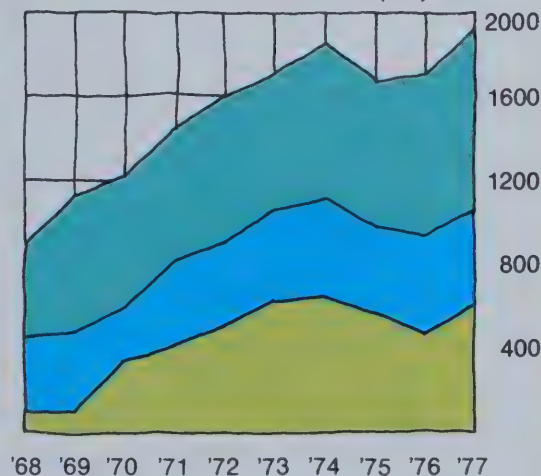
Francois Laperriere packs finished ceiling tiles for shipment from the Pont Rouge, Que., plant.

million, compared to \$186 million in 1976. Ethylene deliveries were 244 kilotonnes, about 11 percent more than 1976. Benzene shipments were 22 percent greater than the previous year. Production of tetramer, a

### Chemicals and Building-Materials Sales

- petrochemicals
- building materials
- fertilizer

thousands of metric tons per year







*Shipments from the Redwater fertilizer plants were 609,000 metric tons in 1977.*

chemical intermediate, was 35 kilotonnes and sales were made mainly to export markets. Sales of polyvinyl-chloride resin were lower in 1977, reflecting the depressed condition of the Canadian plastics-fabricating industry and related secondary manufacturing.

### FABRICATED PRODUCTS

Fabricated products comprise building materials (building paper, roofing, fibre-board, insulation, and vinyl siding) and cordage. Sales of building materials were about equal to 1976 at 446 kilotonnes despite a decline of 10 percent in Canada's record housing construction activity of 1976. Revenues from sales were \$113 million in 1977, compared to \$104 million in 1976. Production of an improved version of ESFEN Roof Insulator began in May. By year end, sales of the improved product were more than double the level of 1976.

As a consequence of unattractive market conditions and a profit outlook that was less than satisfactory, the manufacture of plastic pipe ceased at Edmonton, Alta., and Acton, Ont., and the equipment was sold in the first half of 1977. For the same reasons, Polybottle Limited, Weston, Ont., was also sold. The Saskatoon plant of Poli-Twine Corp. Ltd. was closed and the manufacturing of twine and rope was consolidated at the company's Belleville, Ont., plant.

*new roof insulator introduced*

### AGRICULTURAL CHEMICALS

Revenue from agricultural chemicals in 1977 increased more than 25 percent over 1976, mainly as a result of sales to overseas markets. Revenues in 1977 were \$89 million, compared to \$70 million in 1976. In Western Canada and the United States, the amount of agricultural chemicals sold increased 15 percent over 1976, despite little or no growth in this market.

Compared with 1976, however, earnings from agricultural chemicals in 1977 were down. Costs continued to rise, particularly for raw materials – prices for natural gas alone increased more than 50 percent. Products were also in plentiful supply, particularly in Western Canada, and prices did not keep up with rising costs. The long-term outlook is favorable, however, as world demand approaches production capacity in the 1980s.



*Guglielmo Gualdieri (left) and Claude Baulieu splice building paper at the LaSalle, Que., plant.*



## Other Operations

### Summary

This segment reports the operations and equity earnings of Imperial's principal investments, the earnings from its property-development operations, and the net income from the interest on cash investments less the cost of short-term debt. Total earnings for this segment were \$30 million in 1977, an increase of \$2 million over the 1976 results.

### Highlights

#### PRINCIPAL INVESTMENT AT EQUITY VALUE

Imperial's principal investments and the percentage interests in them are: Alberta Products Pipe Line Ltd., 30 percent; Inter-provincial Pipe Line Limited, 32.8 percent; Montreal Pipe Line Company Limited,

32 percent; Rainbow Pipe Line Company, Ltd., 33.3 percent; Tecumseh Gas Storage Limited, 50 percent; Trans Mountain Pipe Line Company Ltd., 8.6 percent.

#### PROPERTY DEVELOPMENT

Devon Estates Limited, a wholly owned subsidiary, manages Imperial's non-operating real estate holdings – mainly land from former service stations and former refineries. More than 100 of these properties across Canada were sold or leased during the year.

#### INCOME FROM CASH INVESTMENTS

The cash the company requires to carry out its day-to-day operations is normally held in short-term investments until required. Short-term borrowing is used to even out monthly fluctuations in the cash balance.

## Subsidiary Companies

W. H. Adam, Ltée, Ltd.  
Albury Company Limited  
Atlas Supply Company of Canada Limited  
Bourque Brothers Limited  
Building Products of Canada Limited  
Champlain Oil Products Limited  
Citadel Centres Limited  
Delta Rope & Twine Limited\*  
Devon Estates Limited  
83891 Canada Ltd.  
E S F Limited  
Esso of Canada Limited  
F. A. F. Holdings Limited  
Donat Grandmaitre Limited  
Hall Fuel (1965) Limited  
Hi-Way Petroleum Ltd.  
Home Oil Distributors Limited  
Imperial Oil Developments Limited  
Imperial Oil Enterprises Ltd.  
Imperial Oil of Canada Shipping Company Limited

\*Not consolidated

The Imperial Pipe Line Company, Limited  
Ioco Townsite Limited  
Lou's Service (Sault) Limited  
Maple Leaf Petroleum Limited  
Midwest Fibreboard Ltd.  
Mongeau & Robert Cie Ltée  
James Murphy Fuel Oil Company Limited  
Nisku Products Pipe Line Company Limited  
Northwest Company, Limited  
J. P. Papineau Ltd.  
Poli-Twine Corp. Ltd.  
Renown Building Materials Limited  
Les Restaurants Le Voyageur Inc.  
Robbins Floor Products of Canada Ltd.  
Seaway Bunkers Limited  
Servacar Ltd.  
Stanmount Pipe Line Company  
Transit Company, Limited  
Western Oil & Trading Company Limited  
Winnipeg Pipe Line Company Limited







# Imperial and the Community

Not all of Imperial's activities can be measured against the standards of profit and loss. The costs of the company's employment practices, its environmental activities, and its contributions to community causes can be reported precisely, but the benefits are difficult to measure. They're real for all that, and this section of the 1977 annual report is presented to give shareholders some understanding of the extent of Imperial's actions in this area of life.

## Human Health and the Natural Environment

Since 1972, the company has spent \$213 million on facilities and \$137 million on operating costs to comply with the content and timing of all applicable laws and government guidelines for the protection of human health and the natural environment and, in many cases, to go beyond them.

The amount spent on capital projects during 1977 to protect the environment



*At Vancouver, Burrard Inlet is patrolled by a self-propelled oil skimmer owned and operated by some companies on the inlet, including Imperial.*

*refineries spending \$40 million to treat waste water*



*Head office assistant tax manager Don Macintyre teaches scuba diving in his spare time.*

and safeguard the health of employees was \$35 million. Operating costs during the year for these and other projects to protect the environment amounted to \$35 million.

Construction of facilities to improve the quality of waste waters continued at the refineries in Dartmouth and Montreal. These facilities will be completed by the spring of 1980 and are expected to cost a total of \$40 million.

Studies of the effects on the marine organisms and physical environment of building artificial islands in the Beaufort Sea continued in 1977. These studies have enabled the company to develop procedures that meet the environmental requirements to drill in this offshore area. The company also continued its study of the ice conditions, currents, chemistry, and biology of

*Jacques Godin (right) and  
Vincent Fournier in  
1740, an episode in  
THE NEWCOMERS series.*





*Brenda Orr, a technical clerk in Edmonton, teaches dancing at the Duggan Community League.*

the Davis Strait and Labrador Sea in preparation for exploratory drilling there.

During 1977, the company completed the organization of teams to take immediate action in the event of a major oil spill. The teams are located in the Atlantic region, in Quebec, Ontario, the Prairies, British Columbia, and the Arctic. They have been trained to bring the resources of the company to bear on spills wherever they may occur. The company also worked with provincial petroleum-industry associations to respond to minor oil spills.

The company continued to participate in the activities of environmental groups established by the petroleum industry, particularly the Petroleum Association for the Conservation of the Canadian Environment (PACE). In 1977, PACE cooperated with the federal and provincial governments in a task force to develop guidelines for emissions into the air from refineries.

It has been recognized that some of the substances Imperial works with can be hazardous if they are not handled with care, and it has been the company's practice to inform customers of these hazards and to take the necessary steps to avoid exposure of employees to them.

*cooperation with  
industry environmental  
groups*

## Relations with Employees

Dedicated employees are essential to the success of Imperial's operations. To achieve this commitment, the company's policy is to communicate openly and to consult employees when decisions affecting them personally are made.

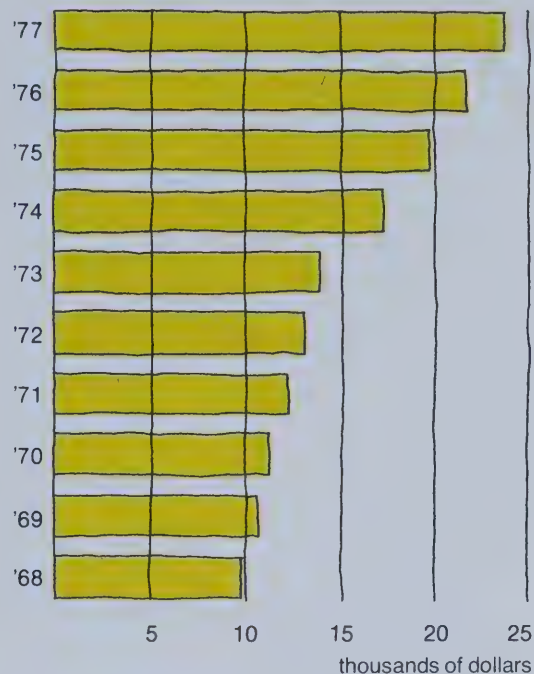
A policy of communication and consultation has been in effect at Imperial since 1918, when the first joint industrial council was formed at Sarnia. In the intervening 60 years, the format of the councils has changed and new groups have evolved to meet new needs. Today, 86 joint industrial councils and committees of employees and management are functioning throughout the company. They provide forums where employees and management can discuss all matters of common interest including operations, compensation, working conditions, and grievances.



*Rod Kerr, Vancouver sales manager, chaired the committee that got the South Surrey/White Rock indoor swimming pool built in 1974.*



## Salaries, Wages and Benefits Per Employee



*programs for employee health and fitness*

### SURVEYS OF EMPLOYEE ATTITUDES

In 1975, the company canvassed all employees by questionnaire to gather information about their concerns and to learn more about their attitudes to Imperial. The findings of the survey were reported to employees, as well as the actions taken by the company in response.

Late in 1977, a second survey was completed by sampling a representative group and the results prepared for distribution to all employees. Concerns are focussed on the relationship between the company and employees, including opportunities for women and clerical workers, a need for greater knowledge about the operations and activities of the company, and a desire to take part in decisions on matters that affect employees personally.

Specific plans to respond to the concerns identified by the survey were under development late in 1977 for action in 1978.

## EMPLOYEE HEALTH AND FITNESS

The well-being of employees has always been a matter of concern at Imperial. Apart from the important humanitarian aspect, healthy employees are more effective and the company has programs to monitor the health of employees, to avoid illness arising from occupational sources, to collect information about the long-term effects of the company's operations and materials on employees, and to provide counselling in dealing with stress-related conditions. In 1977, Imperial introduced a plan to assist all employees to achieve and maintain a satisfactory level of physical fitness.

In 1953, Imperial became the first Canadian company to employ an industrial hygienist. There are now four of these specialists working with Imperial's eight physicians, principally in the identification and control of occupational hazards to health.

The company provides advice to employees on the hazards of obesity, smoking, and the use of alcohol and other drugs. In the case of alcoholism, Imperial has a program to assist supervisors to detect this condition in employees early enough for the company's physicians to help the afflicted persons overcome it.



*John Malowanec (right) interviews Grant Johnston for the 1977 employee opinion survey.*



## Imperial and the Community

*new safety records set*

### SAFETY AT WORK

Safety is one of the factors on which the performance of operating managers is appraised, and this approach is successful in reducing accidents at Imperial. In Esso Chemical Canada, for example, intensified safety programs have reduced the frequency of lost-time accidents to 0.6 per million hours worked, less than one-tenth the 1971 level. New programs aimed at overall employee safety helped reduce off-the-job injuries among Esso Chemical's 2,500 employees from 158 in 1976 to 91 in 1977. The Sarnia chemical plant achieved two million hours without a disabling injury — a record for the plant. The plant at Pont Rouge, Quebec was cited by *Pulp and Paper Canada* magazine as the safest paper mill in the country in 1976. The plant matched its performance in 1977 by operating all year without an accident.

On Oct. 21, Imperial's refinery at Montreal completed three million man-hours of

work without a disabling injury and on June 8 the drivers at Imperial's Winnipeg terminal completed three million miles of driving without a preventable accident. These two accomplishments set new records for safety at Imperial and show what can be done when management and employees commit themselves wholeheartedly to the achievement of a goal.

### HIGHER EDUCATION AWARDS

Imperial pays the tuition and compulsory fees for the children and stepchildren of employees and annuitants at Canadian institutions of post-secondary education. These Higher Education Awards are available to all eligible students who obtain grades of 70 percent or higher. Since the program went into operation in 1962, Imperial has paid more than \$5 million in tuition and fees. In 1977, a total of 1,046 students won awards at a cost to the company of just under \$700,000.

*Drivers at the Winnipeg terminal set a safety record in June. From the left, they are, top row: Bob Menard, Bob Arrell, Bert Quartel, Ed Bettens, Mel Brown, Ramsay Huska, Winston Warren, Len Smith, Roy Hoare. Middle row: Paul Rebiffe, Eric McLennan, Ray Lerner, Gerry Fizell, Tom Kay, Ken Asselstine. Front row: George Gelhorn, Nick Voth, Peter Krahn, Mike Chanowski and Bob Ainsworth. Drivers Lloyd Bonwick, Ron Gillespie, Garry Gordon, and Ray Meneer, and mechanic Fred Smith were also part of the team.*

## Energy Conservation

During 1977, the company continued extensive programs to improve the efficiency of its operations and particularly its efficiency in the use of energy. These programs reduced the amount of energy consumed by about five percent compared to 1976 — the equivalent of approximately one million barrels of oil.

*a million "barrels" of  
energy saved*





## Contributions to Society

As a major national corporation, Imperial follows a practice of employing a reasonable share of its resources and talents for the betterment of life in Canada. The company's policy in this respect is to determine social needs of high priority that will be of benefit to a wide segment of the population, and to support work in these areas when funding from other sources is insufficient. Contributions to meet national social needs are made through the head office. Regional needs are evaluated and contributions made through committees in Halifax, Montreal, Toronto, Winnipeg, Calgary, Edmonton and Vancouver. During 1977, the company contributed approximately \$3½ million to education, health, welfare, community services, sports, and culture. These included United Way funds, university grants, scholarships, the Canada Games, and the arts.

*contributions to  
Canada's social needs*



*Vancouver refinery employees Allan Urquhart (left) and Jim Walker are volunteers with the Port Moody fire department.*



*Customer-relations clerk Linda Whyte is a political campaign worker in Toronto.*

In November, 1977, the first film in **THE NEWCOMERS**, a series of seven films commissioned by Imperial to mark the company's centennial in 1980, was broadcast on the CBC. The film, *Prologue*, is a documentary-drama depicting the rituals of a representative group of Indians, showing this aspect of Indian life as it may have been before contact with white men.

Two other films in the series – *1740* and *1847* – were broadcast in the first quarter of 1978. The four remaining films will be broadcast during 1978 and 1979, and all seven will be run as a series in 1980. Using personal references and diaries, these six episodes recreate the experiences of a number of people who came to this country over a period of 240 years. Each tells the story of one or two representative individuals – what they faced when they arrived and how they dealt with it.

Each film is available to educational institutions after its initial telecast.







## Imperial Oil Limited

### Consolidated financial statements for the years 1977 and 1976, together with Ten-Year Financial and Operating Summary

## Summary of Accounting Policies

### Principles of Consolidation

The consolidated financial statements include the accounts of Imperial Oil Limited and its wholly owned subsidiary companies. All inter-company accounts and transactions have been eliminated.

Imperial's share of the capital and other expenditures relating to the Syncrude project is included in the Consolidated Financial Statements.

The principal investments in other companies are accounted for on the equity basis and Imperial's share of their earnings before income taxes is shown as "Equity in earnings of principal investments" in the Consolidated Statement of Earnings. The income taxes related to these earnings are included in "Income taxes" in the same statement. These investments are recorded in the Consolidated Balance Sheet at Imperial's share of the book value of their underlying net assets. Other investments are recorded at cost and income from them is recorded only as dividends are declared.

A list of subsidiary companies is shown and the principal investments at equity value are reported on page 23.

### Inventories

Inventories are recorded at cost under the first-in, first-out method, which is less than net realizable value.

### Property, Plant, and Equipment

Property, plant, and equipment are stated at cost and are so carried until sold or otherwise disposed of.

Exploration expenditures, including costs of acquisition and retention of exploration acreage, geological and geophysical surveys, and unsuccessful drilling are charged against earnings as incurred, except to the extent that they relate to the acquisition of acreage expected to be productive, based on the company's past experience.

In general, maintenance and repairs are charged to current operating expense but improvements that increase the service capacity or prolong the service life beyond that contemplated in the established rates are capitalized.

The net book amount of property sold or otherwise disposed of, less proceeds or salvage, is charged to earnings.

Depreciation of plant and equipment is

based on the estimated service life of the asset, calculated on the straight-line method. Amortization of producing-well costs and of capitalized producing-lease costs is determined on the unit-of-production method.

### Unamortized Debt Discount and Expense

The expense and discount on each debt issue are amortized in accordance with the straight-line method over the term of the respective debt.

### Federal Import Compensation

Amounts received or claimed under the federal compensation program for oil imports are deducted from the cost of crude-oil and product purchases. The company has maintained its selling prices in accordance with federal government guidelines in order to be eligible for this compensation.

### Income Taxes

The company follows the tax-allocation basis of accounting for income taxes.

### Taxes Other than Income Taxes

Taxes levied on the company are included in "Taxes other than income taxes" in the Consolidated Statement of Earnings. Included in this category are federal sales tax, property taxes, and the special gasoline excise tax.

Taxes levied on the consumer and collected by the company – primarily provincial road taxes – are not included in the Consolidated Statement of Earnings, nor is the federal tax on exports of crude oil and petroleum products.

### Employee Retirement Plans

The company has a number of retirement plans covering substantially all employees. Costs of these plans are charged to earnings and funded on the basis of actuarial calculations made at least every three years. Increases in the estimated present value of projected benefits created by revisions to the plans are amortized over 15 years. The effect of inflationary forces, which cause salary levels to rise at a rate faster than that used in the actuarial calculations, is provided for currently. Shortages experienced as a result of other factors in the actuarial calculations, including decreases in the market value of securities, are provided for over periods of up to 15 years.

*At the Poli-Twine plant in Belleville, Ont., Wayne White operates a rope-making machine.*



# Imperial Oil Limited

## Consolidated Statement of Earnings for the years 1977 and 1976

<b>Revenues</b>	1977	1976
	<i>millions of dollars</i>	
Petroleum products	2,852	2,495
Crude oil and natural gas (including sale of purchased crude: 1977 - \$1,440; 1976 - \$1,228)	1,595	1,353
Chemicals and building materials	406	345
Other products	75	71
Other operating revenues	42	40
Equity in earnings of principal investments	41	34
Investment and other income	30	29
	<u>5,041</u>	<u>4,367</u>
<b>Expenses</b>		
Purchases of crude oil and products	3,082	2,612
Operating and exploration	481	430
Selling and administration	432	398
Depreciation and amortization	102	97
Income taxes (Note 1)	268	212
Taxes other than income taxes	357	323
Interest on long-term debt	30	31
	<u>4,752</u>	<u>4,103</u>
<b>Earnings for the year</b>	<u>289</u>	<u>264</u>
<b>Earnings per share (dollars)</b>	<u>\$2.22</u>	<u>\$2.03</u>

The Summary of  
Accounting Policies and  
Notes to the Financial  
Statements are part of  
this statement.

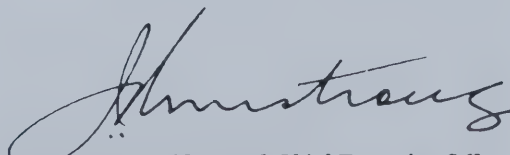


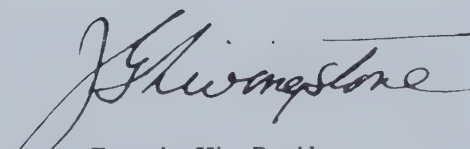
Consolidated  
Balance Sheet  
as at December 31,  
1977 and 1976

<b>Assets</b>	1977	1976
	<i>millions of dollars</i>	
<b>Current assets:</b>		
Cash, including time deposits	33	13
Marketable securities, at the lower of cost and market	47	88
Accounts receivable (Note 2)	623	564
Inventories: crude oil and products	475	439
materials and supplies	47	48
Prepaid expenses	11	14
<b>Total current assets</b>	<b>1,236</b>	<b>1,166</b>
Investments (Note 3)	98	90
Long-term accounts receivable and other assets (Note 4)	39	42
Property, plant, and equipment (Note 5)	2,028	1,841
<b>Total Assets</b>	<b>3,401</b>	<b>3,139</b>
<b>Liabilities and Deferred Credits</b>		
<b>Current liabilities:</b>		
Short-term notes (Note 6)	14	15
Accounts payable and accrued liabilities (Note 2)	532	476
Income and other taxes payable	68	85
<b>Total current liabilities</b>	<b>614</b>	<b>576</b>
Long-term debt (Note 7)	323	331
Other long-term obligations	9	10
Deferred income taxes	545	486
<b>Total Liabilities and Deferred Credits</b>	<b>1,491</b>	<b>1,403</b>
<b>Shareholders' Equity</b>		
Capital stock (Note 8)	289	288
<b>Earnings retained and used in the business:</b>		
At beginning of year	1,448	1,290
Earnings for the year	289	264
Dividends (per share: 1977 - 88.8¢; 1976 - 81.6¢) (Note 8)	(116)	(106)
At end of year	1,621	1,448
<b>Total Shareholders' Equity</b>	<b>1,910</b>	<b>1,736</b>
<b>Total Liabilities, Deferred Credits, and Shareholders' Equity</b>	<b>3,401</b>	<b>3,139</b>

Approved by the board

The Summary of  
Accounting Policies and  
Notes to the Financial  
Statements are part of  
this statement.

  
President and Chief Executive Officer

  
Executive Vice-President



# Imperial Oil Limited

## Consolidated Statement of Changes in Financial Position for the years 1977 and 1976

	1977	1976
	<i>millions of dollars</i>	
<b>Funds were provided from:</b>		
Operations: Earnings for the year	289	264
Charges /(credits) not affecting working capital:		
Depreciation and amortization	102	97
Deferred income taxes	59	62
Excess of equity earnings over dividends declared	(4)	(3)
	446	420
Sales of property, plant, and equipment	18	21
Other, net	(1)	7
	463	448
<b>Funds were used for:</b>		
Capital expenditures for property, plant, and equipment	307	313
Dividends	116	106
Reduction of long-term debt	8	11
	431	430
<b>Increase in working capital</b>	32	18
<b>Additions to (deductions from) working capital:</b>		
Cash, marketable securities, and short-term notes	(20)	(5)
Accounts receivable	59	(49)
Inventories	35	76
Prepaid expenses	(3)	7
Accounts payable and accrued liabilities	(56)	19
Income and other taxes payable	17	(30)
<b>Increase in working capital</b>	32	18

The Summary of  
Accounting Policies and  
Notes to the Financial  
Statements are part of  
this statement.





## Auditors' Report

To the shareholders of Imperial Oil Limited:

We have examined the Consolidated Statements of Earnings and Changes in Financial Position of Imperial Oil Limited for the year ended December 31, 1977 and the Consolidated Balance Sheet as at that date. Our examination was made in accordance with generally accepted auditing standards, and accordingly included such tests and other procedures as we considered necessary in the circumstances.

In our opinion, these consolidated financial statements present fairly the results of operations and changes in financial position of the company for the year ended December 31, 1977 and its financial position at that date in accordance with generally accepted accounting principles applied on a basis consistent with that of the preceding year.

*Pricewaterhouse & Co.*

Chartered Accountants,  
Toronto-Dominion Centre, Toronto,  
Ontario.

February 23, 1978

*A service rig works on a well at the Judy Creek oil field to maintain productivity.*



## NOTES TO THE FINANCIAL STATEMENTS

1. Income Taxes	1977	1976
	<i>millions of dollars</i>	
Imperial Oil Limited: current	187	134
deferred	59	62
Principal investments at equity value	22	16
	268	212

The operations of the company are complex and the related income-tax interpretations, regulations, and legislation are continually changing. As a result, there are usually some tax matters in question. The company believes the provision made for income taxes payable is adequate.

## 2. Amounts Owing to and from Affiliated Companies

Amounts owing to and from affiliated companies, all of which arose in the normal course of operations, were \$76 million and \$1 million respectively at Dec. 31, 1977 (\$65 million and \$2 million respectively at Dec. 31, 1976).

3. Investments	1977	1976
	<i>millions of dollars</i>	
At equity value:	72	68
with quoted market value of		
\$124 million at Dec. 31, 1977		
(\$125 million at Dec. 31, 1976)		
without quoted market value	20	21
At cost	6	1
	98	90

Investments stated at equity value are comprised mainly of Imperial's investments in pipeline companies that transport crude oil to refineries.

## 4. Long-Term Accounts Receivable and Other Assets

	1977	1976
	<i>millions of dollars</i>	
Long-term accounts receivable	24	27
Funds on deposit with governments and others	5	4
Deferred charges	10	11
	39	42

## 5. Property, Plant, and Equipment

	Cost		Accumulated depreciation and amortization	
	1977	1976	1977	1976
	<i>millions of dollars</i>			
Exploration and production	829	781	339	315
Syncrude and heavy oil	538	361	16	13
Other minerals	2	1	1	1
Crude-oil refining	974	953	366	335
Marketing	474	476	209	205
Chemicals and building materials	246	237	142	134
Other	64	59	26	24
	3,127	2,868	1,099	1,027
Net investment	2,028	1,841		

The charge against earnings in 1977 for amortization of producing-well costs and capitalized producing-lease costs amounted to \$10 million (1976 – \$10 million) and the accumulated provision at Dec. 31, 1977, amounted to \$190 million.

## 6. Short-Term Notes

The month-end average of short-term debt outstanding during 1977 amounted to \$23 million (1976 – \$17 million). The daily, weighted-average, interest rate for 1977 was 7.4 percent (1976 – 9.3 percent). The maximum amount of short-term notes outstanding at the end of any month in 1977 was \$53 million (1976 – \$24 million).

7. Long-Term Debt	1977	1976
	<i>millions of dollars</i>	
6¾% Sinking Fund Debentures, 1967 Issue, maturing Jan. 2, 1987	30	32
7¾% Sinking Fund Debentures, 1968 Issue, maturing Jan. 2, 1988	33	36
8½% Sinking Fund Debentures, 1969 Issue, maturing Aug. 15, 1989	18	18
6⅞% Serial Debentures, 1972 Issue, maturing Feb. 15, 1981	10	13
7¾% Sinking Fund Debentures, 1972 Issue, maturing Feb. 15, 1992	35	35
10⅞% Sinking Fund Debentures, 1974 Issue, maturing Aug. 15, 1994	100	100
9¾% Sinking Fund Debentures, 1975 Issue, maturing Feb. 15, 1995	100	100
	326	334
Amount due within one year	3	3
	323	331



Sinking-fund and maturity payments required during the next five years on the debentures listed are: 1978 – \$3 million; 1979 – \$6 million; 1980 – \$14 million; 1981 – \$19 million; 1982 – \$19 million.

## 8. Capital Stock

Number of shares	Class A	Class B
authorized	160,000,000	160,000,000
issued: Dec. 31, 1977	34,886,199	95,353,380
Dec. 31, 1976	125,852,510	4,358,944

Each class of shares is voting, convertible into one another on a share-for-share basis, and ranks equally with respect to dividends and in all other respects. In the case of Class B shares, however, cash dividends may be paid out of tax-paid, undistributed surplus on hand or out of 1971 capital surplus on hand as defined in the Income Tax Act of Canada.

The company has two stock-option plans for employees under which options for the purchase of Class A or Class B common shares of the company are still outstanding. No further options may be granted under either of these plans. As of Dec. 31, 1977, there were outstanding options to purchase 1,038,527 shares at prices ranging from \$14.06 to \$38.14. All options may be exercised currently. Included in the above are 202,560 shares under option to directors and officers. In 1977, options were exercised totalling 28,125 shares for \$466,000 under the terms of the plans.

## 9. Remuneration of Directors and Officers

In 1977, the aggregate remuneration of 11 directors and one former director of the company when serving only as directors or as both directors and officers was \$1,598,000. The aggregate remuneration of nine other officers of the company when serving only as officers was \$1,064,000. Eight directors and one former director were officers in 1977.

## 10. Long-Term Incentive Compensation

The company has a long-term incentive compensation plan under which additional compensation may be granted to selected employees. Future payments with respect to incentive compensation will be based on any increase in the price of Imperial Class A shares or any increase in the earnings per share of the company. Total charges to earnings in respect of this incentive for 1977 were \$1,771,000 (1976 – \$512,000).

## 11. Employee Retirement Plans

The estimated market value of the pension-fund assets on Dec. 31, 1977, was \$355 million, which approximates the value of the vested benefits at that date. The estimated present value of all future benefits exceeds the market value of the fund by \$98 million and this amount is being amortized in accordance with accepted practices as outlined on page 31. Most of this future obligation results

from increases in benefits for both annuitants and employees.

The company charged \$34 million to earnings in 1977 (1976 – \$37 million) in respect of company retirement plans.

## 12. Syncrude

Through Syncrude Canada Ltd., the company is a participant in the construction of a plant to produce synthetic crude oil from the Athabasca oil sands. The project is currently estimated to cost about \$2.2 billion. The company's 31.25-percent share will amount to approximately \$698 million, of which approximately \$533 million was spent to Dec. 31, 1977.

The Alberta Energy Company Ltd. holds an option to acquire up to 20 percent of the existing participating interests in Syncrude. This option can be exercised up to six months after production commences. Should this option be exercised to the maximum extent, Imperial's 31.25-percent interest would be reduced to 25 percent with a proportionate reimbursement for its investment.

## 13. Contingencies and Commitments

The company has guaranteed or otherwise agreed to protect obligations of others in the principal amount of \$5 million.

Rentals and commitments payable by the company under long-term agreements, including those relating to the Syncrude project, approximate \$37 million annually.

A number of lawsuits are pending against the company. In the opinion of counsel, any financial liability that may result from these suits will not have a significant effect on the consolidated financial position of the company.

## 14. Saskatchewan Levies

On Dec. 23, 1976, Imperial commenced an action in the Supreme Court of Saskatchewan challenging the constitutionality and validity of the Saskatchewan mineral income tax and royalty surcharge. On Nov. 23, 1977, both levies were held unconstitutional by the Supreme Court of Canada in a lawsuit brought by another party. The courts have not considered the constitutionality of the composite royalty introduced effective Nov. 1, 1976, to replace the royalty surcharge. Subsequently, the Saskatchewan Legislature enacted the Oil Well Income Tax Act, 1977. The tax imposed by this statute, which has not yet been proclaimed in force, will be retroactive to Jan. 1, 1974, and will replace in whole or in part the mineral income tax, the royalty surcharge, and the composite royalty. Imperial has paid under protest the royalty surcharge the composite royalty, and the mineral income tax until it was held unconstitutional. Since November, 1977, the company has made provision for an amount equal to the mineral income tax. Imperial's position in respect of these various levies cannot be determined until the regulations under the Oil Well Income Tax Act, 1977 are issued and studied.



# Ten-Year Financial and Operating Summary

(dollars in millions except per-share and per-employee amounts)

	Revenues									Earnings		
YEAR	Petroleum products	Crude oil and natural gas	Chemicals and building materials	Other products	Other operating	Total operating revenues	Equity in earnings of principal investments	Investment and other income	Total revenues	Total	Per share (1)	Total
1977	\$2,852	\$1,595	\$406	\$75	\$42	\$4,970	\$41	\$30	\$5,041	\$289	\$2.22	\$116
1976	2,495	1,353	345	71	40	4,304	34	29	4,367	264	2.03	106
1975	2,073	1,542	320	72	40	4,047	33	30	4,110	250	1.92	104
1974	1,789	1,424	318	76	38	3,645	36	32	3,713	289	2.22	104
1973	1,316	946	198	74	46	2,580	44	24	2,648	225	1.74	104
1972	1,094	699	155	70	27	2,045	36	23	2,104	151	1.18	77
1971	1,022	650	145	65	25	1,907	32	22	1,961	139	1.08	77
1970	924	534	131	63	28	1,680	28	21	1,729	106	.83	68
1969	877	437	123	59	15	1,511	24	15	1,550	93	.73	68
1968	857	389	115	56	15	1,432	23	15	1,470	98	.76	67

	Taxes and Royalties							Financial Position at Year-End							
YEAR	CHARGED AGAINST INCOME						COLLECTED FOR GOVERNMENTS								
	Income taxes	Federal sales tax	Special gasoline excise tax	Property and other taxes	Crown royalties	Total	Export tax	Road and other taxes	Current assets	Current liabilities	Current ratio	Working capital	Property, plant, and equipment net	Capital employed (2)	
1977	\$268	\$146	\$174	\$37	\$355	\$980	\$ 58	\$325	\$1,236	\$614	2.0	\$622	\$2,028	\$2,787	
1976	212	119	168	36	291	826	119	294	1,166	576	2.0	590	1,841	2,563	
1975	240	97	88	32	273	730	224	270	1,167	595	2.0	572	1,646	2,355	
1974	267	81	—	28	251	627	297	272	1,085	645	1.7	440	1,475	2,056	
1973	147	70	—	35	81	333	16	287	762	382	2.0	380	1,228	1,750	
1972	97	59	—	22	37	215	—	259	658	283	2.3	375	1,043	1,557	
1971	97	57	—	20	29	203	—	245	625	299	2.1	326	922	1,392	
1970	75	52	—	19	26	172	—	239	577	274	2.1	303	875	1,319	
1969	65	52	—	18	21	156	—	233	517	221	2.3	296	859	1,280	
1968	66	49	—	17	19	151	—	221	498	247	2.0	251	811	1,181	

	Exploration and Production								Crude Supply and Utilization — thousands of barrels per day				
YEAR	GROSS PROVED RESERVES(6)								CANADIAN CRUDE				
	Land holdings(5) (millions of acres)	NET WELLS DRILLED		Crude oil and natural-gas liquids (millions of barrels)	Western Canada natural gas (billions of cubic ft.)	Mackenzie Delta estimated natural-gas reserves(7) (billions of cubic ft.)	Gross production crude oil and natural-gas liquids (thousands of bbls. per day)	Natural-gas sales (millions of cubic feet per day)	Net production	Purchases from others (8)	Domestic sales	Export sales	Used in Imperial refineries
1977	40	34	41	1,038	2,200	3,400	230	363	148	532	311	65	304
1976	50	16	11	1,101	2,366	3,400	236	378	154	503	275	110	272
1975	61	6	8	1,137	2,519	3,100	265	412	173	605	336	199	243
1974	67	16	49	1,206	2,607	—	337	421	224	677	389	246	266
1973	89	26	42	1,338	2,868	—	345	480	275	673	373	313	262
1972	89	20	43	1,387	3,060	—	262	425	224	626	319	288	243
1971	87	12	32	1,489	3,188	—	213	397	183	636	337	229	253
1970	65	23	27	1,567	3,328	—	199	372	170	589	304	203	252
1969	45	54	31	1,702	3,340	—	179	350	154	500	255	162	237
1968	46	90	54	1,593	3,117	—	173	336	150	443	225	145	223

## (1) Per-Share Amounts

Per-share amounts for earnings and funds from operations have been calculated using the monthly weighted average of shares issued.

## (2) Earnings as a Percentage of Capital Employed

Earnings after income taxes plus after-tax interest on long-term debt. This amount is expressed as a percentage of average capital employed. Capital employed is total assets less current liabilities.

## (3) Earnings as a Percentage of Shareholders' Equity

Earnings after income taxes expressed as a percentage of average

shareholders' equity. Shareholders' equity is capital stock plus earnings retained and used in the business.

## (4) Payroll and Benefits per Employee

Total payroll and benefits for full-time employees divided by the monthly average number of full-time employees.

## (5) Land Holdings

Land holdings exclude the interests of others. Holdings relating to conventional oil and gas, Cold Lake, and the Athabasca oil sands are included; holdings for coal and other minerals are excluded.



Dividends		Funds from Operations		Capital and Exploration Expenditures											YEAR
As a % of earnings	Per share	Total	Per share (1)	PETROLEUM RESOURCE DEVELOPMENT											
				Exploration	Production	Syncrude and heavy oil	Total	Other minerals	Crude-oil refining	Marketing	Chemicals and building materials	Other	Total	Portion expensed	
40	\$ .888	\$446	\$3.42	\$114	\$31	\$179	\$324	\$11	\$ 32	\$29	\$12	\$4	\$412	\$105	1977
40	.816	420	3.24	109	24	187	320	9	23	26	13	2	393	80	1976
42	.80	414	3.17	68	18	102	188	5	85	29	17	2	326	50	1975
36	.80	445	3.41	68	43	66	177	6	165	42	12	2	404	64	1974
46	.80	350	2.70	60	57	6	123	5	154	42	7	2	333	64	1973
51	.60	244	1.89	70	39	4	113	3	93	37	6	7	259	58	1972
56	.60	218	1.69	42	40	4	86	2	35	29	5	4	161	31	1971
64	.525	174	1.35	31	27	2	60	2	15	39	5	1	122	28	1970
72	.525	169	1.32	26	19	2	47	2	22	45	17	1	134	25	1969
69	.525	168	1.31	31	23	6	60	1	46	35	46	—	188	32	1968

					Share Ownership				Employees			YEAR
Earnings as % of capital employed (2)	Total assets	Long-term debt	Shareholders' equity (3)	Earnings as % of shareholders' equity (3)	SHAREHOLDERS		SHARES		PAYROLL AND BENEFITS			
					Number Dec. 31	Resident in Canada %	Issued Dec. 31 (thousands)	Held in Canada %	Number Dec. 31	Total	Per employee(4)	
11.4	\$3,401	\$323	\$1,910	15.9	45,985	88	130,240	24	14,136	\$354	\$23,700	1977
11.4	3,139	331	1,736	16.0	45,807	87	130,211	24	14,753	339	21,600	1976
12.0	2,950	342	1,578	16.6	44,672	87	130,208	22	15,321	326	19,800	1975
15.6	2,701	265	1,432	21.6	44,433	85	130,189	20	16,117	284	17,200	1974
14.1	2,132	224	1,246	19.1	42,646	84	130,117	18	15,936	227	13,900	1973
10.8	1,840	221	1,113	14.1	44,171	84	129,520	20	15,549	201	13,000	1972
10.7	1,691	166	1,031	13.9	46,188	84	129,105	21	15,019	190	12,200	1971
8.6	1,593	173	962	11.3	52,934	86	128,594	24	15,543	176	11,200	1970
8.0	1,501	178	923	10.2	50,188	85	128,528	24	15,516	162	10,500	1969
8.9	1,428	128	896	11.1	37,780	87	128,437	25	15,164	150	9,900	1968

		Petroleum Products — thousands of barrels per day						Chemicals and Building-Materials Sales —thousands of metric tons per year				YEAR	
IMPORTED CRUDE	Purchases (8) used in Imperial refineries	Total crude purchases (8)	Crude oil processed for Imperial	Refinery capacity Dec. 31	SALES				Fertilizer	Building materials	Petrochemicals		Total
					Gasolines	Middle distillates	Other products	Total					
	118	650	422	511	189	142	102	433	609	446	862	1,917	1977
	151	654	423	509	187	150	104	441	487	455	777	1,719	1976
	152	757	395	505	175	144	99	418	561	421	678	1,660	1975
	172	849	438	479	181	157	105	443	642	466	751	1,859	1974
	179	852	441	477	182	160	107	449	619	440	640	1,699	1973
	156	782	399	469	158	160	99	417	513	397	691	1,601	1972
	159	795	412	447	159	149	98	406	410	394	651	1,455	1971
	154	743	406	431	153	151	96	400	349	343	522	1,214	1970
	140	640	377	422	151	143	87	381	105	382	637	1,124	1969
	136	579	359	405	145	142	91	378	105	339	450	894	1968

#### (6) Gross Proved Reserves

The estimated quantity of crude oil, natural gas, natural-gas liquids, and sulfur that analysis of geological and engineering data demonstrates with reasonable certainty to be recoverable from known oil or gas fields under existing economic and operating conditions. This data does not include Mackenzie Delta discoveries of crude oil or Syncrude, Cold Lake, and other heavy-oil deposits.

#### (7) Mackenzie Delta Estimated Natural-Gas Reserves

These reserves are based on the best information available, but cannot

yet be considered to be proved. They are not marketable until a gas pipeline is constructed.

#### (8) Crude Purchases

The figures shown for crude purchases include changes in inventories during the year.



## Imperial Oil Limited

was incorporated under the Canada Joint Stock Companies Act, 1877 on Sept. 8, 1880. Its head office is at 111 St. Clair Avenue West, Toronto, Ontario M5W 1K3.

## Annual Meeting

The annual meeting of shareholders will be held at 11:00 a.m., Monday, April 24, 1978, in the Canadian Room, Royal York Hotel, Toronto.

## Transfer Offices

Shares of Imperial Oil Limited may be transferred at the following offices: head office of Imperial Oil Limited; principal offices of Montreal Trust Company at St. John's, Charlottetown, Halifax, Saint John, Montreal, Toronto, Winnipeg, Regina, Calgary, and Vancouver; and Morgan Guaranty Trust Company of New York.

## Investor Information

Investors may obtain information to assist them in evaluating the company's operations and results from the Manager, Investor Relations, Imperial Oil Limited, 111 St. Clair Ave. West, Toronto, Canada, M5W 1K3. Changes of address or inquiries about shares and dividends may be sent to the Assistant Secretary, Shareholder Affairs, at the same address.

Les rapports annuels de la Compagnie Pétrolière Impériale Ltée sont publiés en français et en anglais. Si vous préférez recevoir le rapport en français, veuillez écrire à la Division des relations avec les actionnaires, Compagnie Pétrolière Impériale Ltée, C.P. 4029, Toronto, Canada, M5W 1K3.